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**APPENDIX W**

**APPENDIX W**  
**BIOTA ANALYTICAL DATA**

**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID SAMPLE ID DATE	AT9-733A AT9-733A 07/22/99	AT9-733B AT9-733B 07/22/99	AT9-733C AT9-733C 07/22/99	AT9-733D AT9-733D 07/22/99	AT9-733E AT9-733E 07/22/99	AT9-734A AT9-734A 07/22/99	AT9-734B AT9-734B 07/22/99	AT9-734C AT9-734C 07/22/99	AT9-734D AT9-734D 07/22/99	AT9-734E AT9-734E 07/22/99	
<b>Lipid</b>											
Lipid	Percent	0.42	0.62	0.61	0.67	0.3	0.32	0.25	0.65	0.49	0.29
<b>Metals</b>											
Aluminum	mg/kg	5.5	U	5.4	U	4.95	U	5.5	U	5.3	U
Antimony	mg/kg	0.45	U	0.445	U	0.405	U	0.45	U	0.435	U
Arsenic	mg/kg	2.4		2.7		2.9		3		2.8	
Barium	mg/kg	6	U	5.9	U	5.4	U	5.95	U	5.75	U
Beryllium	mg/kg	0.15	U	0.15	U	0.135	U	0.15	U	0.145	U
Cadmium	mg/kg	0.15	B	0.16	B	0.14	B	0.12	B	0.13	B
Calcium	mg/kg	293	B	281	B	262	B	328	B	276	B
Chromium	mg/kg	0.7	U	0.7	U	0.65	U	0.7	U	0.65	U
Cobalt	mg/kg	1.55	U	1.55	U	1.4	U	1.55	U	1.5	U
Copper	mg/kg	4.9	B	4.3	B	3.8	B	2.9	B	2.6	B
Iron	mg/kg	50.3	B	52	B	47.4	B	47.9	B	51.9	B
Lead	mg/kg	0.62	B	0.73	B	0.62	B	0.51	B	0.67	B
Magnesium	mg/kg	539		528		484		546		493	
Manganese	mg/kg	1.45	U	1.45	U	1.3	U	1.45	U	1.4	U
Mercury	mg/kg	0.295	U	0.29	U	0.3	U	0.285	U	0.3	U
Nickel	mg/kg	1.5	U	1.5	U	1.35	U	1.5	U	1.45	U
Potassium	mg/kg	2650	BN	2820	BN	2620	BN	2760	BN	2560	BN
Selenium	mg/kg	0.45	U	0.445	U	0.405	U	0.45	U	0.435	U
Silver	mg/kg	0.15	UN	0.15	UN	0.135	UN	0.15	UN	0.145	UN
Sodium	mg/kg	4110	BN	3920	BN	3820	BN	4190	BN	3640	BN
Thallium	mg/kg	0.135	UNW	0.14	UNW	0.14	UNW	0.15	UNW	0.145	UNW
Vanadium	mg/kg	1.4	U	1.4	U	1.25	U	1.4	U	1.35	U
Zinc	mg/kg	31.8	B	22.8	B	54.1		11.8	B	10.2	B
<b>Pesticides/PCBs</b>											
Aroclor-1016	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U
Aroclor-1221	mg/kg	0.0065	U	0.0065	U	0.007	U	0.0065	U	0.0065	U
Aroclor-1232	mg/kg	0.0085	U	0.008	U	0.0085	U	0.009	U	0.0085	U
Aroclor-1242	mg/kg	0.0115	U	0.011	U	0.0115	U	0.012	U	0.0115	U
Aroclor-1248	mg/kg	0.014	P	0.014	P	0.006	U	0.013	P	0.017	P
Aroclor-1254	mg/kg	0.024		0.025		0.017		0.019		0.033	
Aroclor-1260	mg/kg	0.007	U	0.007	U	0.007	U	0.007	U	0.007	U

**Notes**

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

**Qualifiers**

P = Greater than 25% difference for detected concentrations between the two GC columns.

B = Value is less than contract required detection limit, but greater than or equal to instrument detection limit.

U = Not Detected.

N = Spiked sample recovery not within control limits.

W= Post digestion spike was out of control limits.

E = Estimated Value.

**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID SAMPLE ID DATE	AT9-739A AT9-739A 07/22/99	AT9-739B AT9-739B 07/22/99	AT9-739C AT9-739C 07/22/99	AT9-739D AT9-739D 07/22/99	AT9-739E AT9-739E 07/22/99	AT9-740A AT9-740A 07/22/99	AT9-740B AT9-740B 07/22/99	AT9-740C AT9-740C 07/22/99	AT9-740D AT9-740D 07/22/99	AT9-740E AT9-740E 07/22/99											
<b>Lipid</b>																					
Lipid	Percent	0.41	0.44	0.45	0.37	0.44	0.33	0.33	0.21	0.374	0.465										
<b>Metals</b>																					
Aluminum	mg/kg	5.1	U	5.05	U	4.65	U	5.45	U	5.2	U	4.85	U	4.75	U	5.4	U	14.1	B	5	U
Antimony	mg/kg	0.415	U	0.415	U	0.38	U	0.445	U	0.425	U	0.395	U	0.39	U	0.445	U	0.445	U	0.405	U
Arsenic	mg/kg	3		2.6		3.1		2.5		2.9		3.1		2.5		2.7		3.1		2.7	
Barium	mg/kg	5.55	U	5.5	U	5.05	U	5.95	U	5.65	U	5.3	U	5.2	U	5.9	U	5.95	U	5.45	U
Beryllium	mg/kg	0.14	U	0.14	U	0.125	U	0.15	U	0.14	U	0.13	U	0.13	U	0.15	U	0.15	U	0.135	U
Cadmium	mg/kg	0.12	B	0.12	B	0.13	B	0.11	B	0.15	B	0.12	B	0.15	B	0.13	B	0.14	B	0.13	B
Calcium	mg/kg	258	B	253	B	273	B	272	B	259	B	266	B	253	B	252	B	269	B	269	B
Chromium	mg/kg	0.65	U	0.65	U	0.6	U	0.7	U	0.65	U	0.6	U	0.6	U	0.7	U	0.7	U	0.65	U
Cobalt	mg/kg	1.45	U	1.4	U	1.3	U	1.55	U	1.45	U	1.35	U	1.35	U	1.55	U	1.55	U	1.4	U
Copper	mg/kg	3.4	B	3.3	B	2.4	B	3.2	B	2.9	B	13.7		9.5		16.8		21.2		16.6	
Iron	mg/kg	51.1	B	46.3	B	50.4	B	46	B	41.5	B	58.4	B	45.6	B	68.9	B	95.7		56.5	B
Lead	mg/kg	0.51	B	0.52	B	0.49	B	0.54	B	0.62	B	0.68	B	0.59	B	0.77	B	0.79	B	0.6	B
Magnesium	mg/kg	506		477		507		488		490		545		502		547		541		545	
Manganese	mg/kg	1.35	U	1.35	U	1.25	U	1.45	U	1.35	U	1.3	U	1.25	U	1.45	U	1.45	U	1.3	U
Mercury	mg/kg	0.28	U	0.295	U	0.285	U	0.325	U	0.345	U	0.28	U	0.29	U	0.335	U	0.335	U	0.29	U
Nickel	mg/kg	1.4	U	1.4	U	1.25	U	1.5	U	1.4	U	1.3	U	1.3	U	0.52	B	0.5	B	0.45	B
Potassium	mg/kg	2570	BN	2430	BN	2700	N	2620	BN	2520	BN	2490	BN	2530	BN	2490	B	2690	B	2730	
Selenium	mg/kg	0.415	U	0.415	U	0.38	U	0.445	U	0.425	U	0.395	U	0.39	U	0.445	U	0.445	U	0.405	U
Silver	mg/kg	0.14	UN	0.14	UN	0.125	UN	0.15	UN	0.14	UN	0.26	BN	0.13	UN	0.62	BN	0.73	BN	0.57	BN
Sodium	mg/kg	3690	BN	3700	BN	4280	BN	3780	BN	3800	BN	3530	BN	3600	BN	3450	B	3370	B	3750	B
Thallium	mg/kg	0.27	UNW	0.135	UNW	0.15	UNW	0.145	UNW	0.13	UNW	0.125	UNW	0.14	UNW	0.13	UNW	0.145	UNW	0.135	UNW
Vanadium	mg/kg	1.3	U	1.3	U	1.2	U	1.4	U	1.3	U	1.25	U	1.2	U	1.4	U	1.4	U	1.25	U
Zinc	mg/kg	15.9	B	9.7	B	14.8	B	14.8	B	12.4	B	20.9	B	35.9	B	14.3	B	34.5	B	17.9	B
<b>Pesticides/PCBs</b>																					
Aroclor-1016	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.0055	U	0.0029	U	0.003	U	0.00295	U
Aroclor-1221	mg/kg	0.0065	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U	0.006	U	0.00315	U	0.00325	U	0.0032	U
Aroclor-1232	mg/kg	0.0085	U	0.0085	U	0.0085	U	0.009	U	0.0085	U	0.0085	U	0.008	U	0.0041	U	0.00425	U	0.0042	U
Aroclor-1242	mg/kg	0.0115	U	0.0115	U	0.0115	U	0.012	U	0.0115	U	0.0115	U	0.011	U	0.0055	U	0.006	U	0.0055	U
Aroclor-1248	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.015	P	0.006	U	0.0055	U	0.0029	U	0.003	U	0.015	
Aroclor-1254	mg/kg	0.022		0.022		0.022		0.029		0.029		0.024		0.018		0.0034	U	0.0035	U	0.00345	U
Aroclor-1260	mg/kg	0.007	U	0.007	U	0.007	U	0.007	U	0.007	U	0.007	U	0.0065	U	0.0034	U	0.0035	U	0.00345	U

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**STRATFORD, CONNECTICUT**

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<b>Lipid</b>											
Lipid	Percent	0.397	0.034	0.047	0.292	0.059	0.078	0.36	0.183	0.343	0.162
<b>Metals</b>											
Aluminum	mg/kg	4.9	U	4.75	U	5.1	U	5.05	U	4.65	U
Antimony	mg/kg	0.4	U	0.39	U	0.41	U	0.42	U	0.38	U
Arsenic	mg/kg	3.2		2.8		3		2.4		2	
Barium	mg/kg	5.35	U	5.2	U	5.5	U	5.6	U	5.05	U
Beryllium	mg/kg	0.135	U	0.13	U	0.14	U	0.135	U	0.125	U
Cadmium	mg/kg	0.21	B	0.2	B	0.22	B	0.18	B	0.18	B
Calcium	mg/kg	284	B	236	B	262	B	245	B	210	B
Chromium	mg/kg	0.6	U	0.6	U	0.65	U	0.65	U	0.6	U
Cobalt	mg/kg	1.4	U	1.35	U	1.45	U	1.4	U	1.3	U
Copper	mg/kg	7.8	B	9.4		11.1		11.8		9.5	
Iron	mg/kg	54.1	B	49.1	B	59.7	B	52.4	B	54.2	B
Lead	mg/kg	0.74	B	0.67	B	0.74	B	0.54	B	0.53	B
Magnesium	mg/kg	541		495		550		496		420	
Manganese	mg/kg	1.3	U	1.25	U	1.35	U	1.35	U	1.25	U
Mercury	mg/kg	0.305	U	1.3	B	0.31	U	0.28	U	0.325	U
Nickel	mg/kg	0.53	B	0.51	B	0.7	B	0.53	B	0.9	B
Potassium	mg/kg	2640	B	2520	B	2770	B	2560	B	1940	B
Selenium	mg/kg	0.4	U	0.39	U	0.41	U	0.42	U	0.38	U
Silver	mg/kg	0.73	BN	0.83	BN	0.99	BN	0.86	BN	0.7	BN
Sodium	mg/kg	4070	B	3450	B	3690	B	3430	B	2860	B
Thallium	mg/kg	0.15	UNW	0.14	UNW	0.125	UNW	0.145	UNW	0.145	UNW
Vanadium	mg/kg	1.25	U	1.2	U	1.3	U	1.3	U	1.2	U
Zinc	mg/kg	14.2	B	29.7	B	29.8	B	29.9	B	19.5	B
<b>Pesticides/PCBs</b>											
Aroclor-1016	mg/kg	0.0055	U	0.006	U	0.006	U	0.006	U	0.006	U
Aroclor-1221	mg/kg	0.006	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U
Aroclor-1232	mg/kg	0.008	U	0.0085	U	0.0085	U	0.0085	U	0.0085	U
Aroclor-1242	mg/kg	0.011	U	0.0115	U	0.0115	U	0.0115	U	0.0115	U
Aroclor-1248	mg/kg	0.08		0.068	P	0.065	P	0.04	P	0.073	P
Aroclor-1254	mg/kg	0.077	P	0.051		0.049		0.029		0.07	P
Aroclor-1260	mg/kg	0.0065	U	0.007	U	0.007	U	0.007	U	0.007	U

**Notes**

PCBs = Polychlorinated biphenyls

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**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID SAMPLE ID DATE	AT9-743A AT9-743A 07/22/99	AT9-743B AT9-743B 07/22/99	AT9-743C AT9-743C 07/22/99	AT9-743D AT9-743D 07/22/99	AT9-743E AT9-743E 07/22/99	AT9-744A AT9-744A 07/22/99	AT9-744B AT9-744B 07/22/99	AT9-744C AT9-744C 07/22/99	AT9-744D AT9-744D 07/22/99	AT9-744E AT9-744E 07/22/99	
<b>Lipid</b>											
Lipid	Percent	0.288	0.061	0.143	0.075	0.265	0.062	0.061	0.827	0.925	0.943
<b>Metals</b>											
Aluminum	mg/kg	4.8	U	5.3	U	5.1	U	4.6	U	5.1	U
Antimony	mg/kg	0.395	U	0.435	U	0.415	U	0.375	U	0.42	U
Arsenic	mg/kg	2.8		2.2		2.1		3.2		2.8	
Barium	mg/kg	5.25	U	5.75	U	5.55	U	5.05	U	5.6	U
Beryllium	mg/kg	0.13	U	0.145	U	0.14	U	0.125	U	0.14	U
Cadmium	mg/kg	0.18	B	0.15	B	0.14	B	0.16	B	0.14	B
Calcium	mg/kg	280	B	260	B	234	B	278	B	265	B
Chromium	mg/kg	1.5	B	0.65	U	2.8	B	0.6	U	0.65	U
Cobalt	mg/kg	1.35	U	1.5	U	1.45	U	1.3	U	1.45	U
Copper	mg/kg	4.3	B	3.6	B	5.5	B	6.5	B	4.3	B
Iron	mg/kg	61.2	B	55.3	B	59.4	B	53.6	B	53.5	B
Lead	mg/kg	0.67	B	0.62	B	0.67	B	0.63	B	0.52	B
Magnesium	mg/kg	526		502		423		558		496	
Manganese	mg/kg	1.25	U	1.4	U	1.35	U	1.2	U	1.35	U
Mercury	mg/kg	0.28	U	0.29	U	0.31	U	0.295	U	0.33	U
Nickel	mg/kg	1.8	B	0.75	B	2.8	B	0.62	B	0.5	B
Potassium	mg/kg	2610	B	2500	B	2300	B	2640	B	2590	B
Selenium	mg/kg	0.395	U	0.435	U	0.415	U	0.375	U	0.42	U
Silver	mg/kg	0.3	BN	0.29	BN	0.37	BN	0.77	BN	0.35	BN
Sodium	mg/kg	4040	B	3850	B	3210	B	4210	B	3790	B
Thallium	mg/kg	0.135	UNW	0.145	UNW	0.135	UNW	0.145	UNW	0.15	UNW
Vanadium	mg/kg	1.25	U	1.35	U	1.3	U	1.15	U	1.3	U
Zinc	mg/kg	14.5	B	12.7	B	10.3	B	18.2	B	18.4	B
<b>Pesticides/PCBs</b>											
Aroclor-1016	mg/kg	0.00285	U	0.0028	U	0.0055	U	0.006	U	0.006	U
Aroclor-1221	mg/kg	0.0031	U	0.00305	U	0.006	U	0.0065	U	0.0065	U
Aroclor-1232	mg/kg	0.00405	U	0.004	U	0.008	U	0.0085	U	0.0085	U
Aroclor-1242	mg/kg	0.0055	U	0.0055	U	0.011	U	0.0115	U	0.0115	U
Aroclor-1248	mg/kg	0.057		0.067		0.17		0.063		0.11	
Aroclor-1254	mg/kg	0.042	P	0.05		0.13		0.048		0.007	
Aroclor-1260	mg/kg	0.00335	U	0.0033	U	0.0065	U	0.007	U	0.007	U

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**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID	AT9-772A	AT9-772B	AT9-772C	AT9-772D	AT9-772E	AT9-773A	AT9-773B	AT9-773C	AT9-773D	AT9-773E	
SAMPLE_ID	AT9-772A	AT9-772B	AT9-772C	AT9-772D	AT9-772E	AT9-773A	AT9-773B	AT9-773C	AT9-773D	AT9-773E	
DATE	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	
<b>Lipid</b>											
Lipid	Percent	0.825	1.123	1.154	0.745	0.79	0.824	0.838	0.969	0.877	34.106
<b>Metals</b>											
Aluminum	mg/kg	5.05	U	5.2	U	5.05	U	4.9	U	5.35	U
Antimony	mg/kg	0.41	U	0.425	U	0.415	U	0.4	U	0.435	U
Arsenic	mg/kg	3.1		2.9		2.9		3.1		2.7	
Barium	mg/kg	5.5	U	5.65	U	5.55	U	5.3	U	5.85	U
Beryllium	mg/kg	0.135	U	0.14	U	0.14	U	0.135	U	0.145	U
Cadmium	mg/kg	0.13	B	0.13	B	0.13	B	0.11	B	0.19	B
Calcium	mg/kg	276	B	242	B	252	B	265	B	261	B
Chromium	mg/kg	0.65	U	0.65	U	0.65	U	0.6	U	0.65	U
Cobalt	mg/kg	1.4	U	1.45	U	1.45	U	1.35	U	1.4	U
Copper	mg/kg	6	B	6.5	B	4.7	B	3.9	B	4.5	B
Iron	mg/kg	49.2	B	49.8	B	63.7	B	54.2	B	42.4	B
Lead	mg/kg	0.6	B	0.63	B	0.6	B	0.55	B	0.68	B
Magnesium	mg/kg	542		515		483		514		497	
Manganese	mg/kg	1.35	U	1.35	U	1.35	U	1.3	U	1.3	U
Mercury	mg/kg	0.305	U	0.34	U	0.325	U	0.295	U	0.335	U
Nickel	mg/kg	1.35	U	1.4	U	1.4	U	1.35	U	1.45	U
Potassium	mg/kg	2730	B	2690	B	2660	B	2640	B	2560	B
Selenium	mg/kg	0.41	U	0.425	U	0.415	U	0.4	U	0.435	U
Silver	mg/kg	0.51	BN	0.57	BN	0.37	BN	0.135	UN	0.6	BN
Sodium	mg/kg	4090	B	3560	B	3550	B	4020	B	3870	B
Thallium	mg/kg	0.14	UW	0.125	UW	0.15	UW	0.145	UW	0.135	UW
Vanadium	mg/kg	1.3	U	1.3	U	1.3	U	1.25	U	1.35	U
Zinc	mg/kg	10.1	BN	15.4	BN	25.4	BN	21.3	BN	30	BN
<b>Pesticides/PCBs</b>											
Aroclor-1016	mg/kg	0.0055	U	0.0055	U	0.006	U	0.006	U	0.0055	U
Aroclor-1221	mg/kg	0.006	U	0.006	U	0.0065	U	0.0065	U	0.006	U
Aroclor-1232	mg/kg	0.008	U	0.0075	U	0.0085	U	0.008	U	0.008	U
Aroclor-1242	mg/kg	0.011	U	0.0105	U	0.0115	U	0.0115	U	0.011	U
Aroclor-1248	mg/kg	0.048		0.029		0.042		0.049		0.044	
Aroclor-1254	mg/kg	0.038	P	0.023	P	0.027	P	0.032	P	0.0055	U
Aroclor-1260	mg/kg	0.0065	U	0.0065	U	0.007	U	0.007	U	0.007	U

**Notes**

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

**Qualifiers**

P = Greater than 25% difference for detected concentrations between the two GC columns.

B = Value is less than contract required detection limit, but greater than or equal to instrument detection limit.

U = Not Detected.

N = Spiked sample recovery not within control limits.

W= post digestion spike was out of control limits.

E = Estimated Value.

**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID	AT9-778A	AT9-778B	AT9-778C	AT9-778D	AT9-778E	AT9-779A	AT9-779B	AT9-779C	AT9-779D	AT9-779E	
SAMPLE_ID	AT9-778A	AT9-778B	AT9-778C	AT9-778D	AT9-778E	AT9-779A	AT9-779B	AT9-779C	AT9-779D	AT9-779E	
DATE	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	
<b>Lipid</b>											
Lipid	Percent	0.577	0.88	1.079	1.088	0.965	0.877	0.697	0.842	0.709	0.963
<b>Metals</b>											
Aluminum	mg/kg	5.1	U	5.15	U	5.25	U	12.7	B	32	B
Antimony	mg/kg	0.415	U	0.42	U	0.43	U	0.435	U	0.41	U
Arsenic	mg/kg	1.6	B	1.5	B	1.9	B	1.6	B	1.7	B
Barium	mg/kg	5.55	U	5.6	U	5.75	U	5.8	U	5.5	U
Beryllium	mg/kg	0.14	U	0.14	U	0.145	U	0.145	U	0.135	U
Cadmium	mg/kg	0.1	B	0.09	B	0.1	B	0.11	B	0.13	B
Calcium	mg/kg	279	B	246	B	265	B	276	B	277	B
Chromium	mg/kg	0.65	U	0.65	U	0.65	U	0.7	U	0.65	U
Cobalt	mg/kg	1.45	U	1.45	U	1.5	U	1.5	U	1.4	U
Copper	mg/kg	3.3	B	2.9	B	2.3	B	4.5	B	3.4	B
Iron	mg/kg	59.1	B	51.4	B	48.9	B	82.1	B	124	B
Lead	mg/kg	0.54	B	0.6	B	0.51	B	0.88	B	0.72	B
Magnesium	mg/kg	512		477		520		532		528	
Manganese	mg/kg	1.35	U	1.35	U	1.4	U	1.4	U	1.35	U
Mercury	mg/kg	0.315	U	0.315	U	0.325	U	0.3	U	0.32	U
Nickel	mg/kg	1.4	U	1.4	U	1.45	U	1.45	U	1.35	U
Potassium	mg/kg	2720	B	2560	B	2770	B	2700	B	2910	B
Selenium	mg/kg	0.415	U	0.42	U	0.43	U	0.435	U	0.41	U
Silver	mg/kg	0.14	UN	0.14	UN	0.145	UN	0.145	UN	0.135	UN
Sodium	mg/kg	3970	B	3520	B	3830	B	3920	B	3980	B
Thallium	mg/kg	0.145	UW	0.14	UW	0.14	UW	0.15	UW	0.145	UW
Vanadium	mg/kg	1.3	U	1.3	U	1.35	U	1.35	U	1.2	U
Zinc	mg/kg	15.2	BN	17.9	BN	52.6	N	14.5	BN	11.4	BN
<b>Pesticides/PCBs</b>											
Aroclor-1016	mg/kg	0.0055	U	0.006	U	0.006	U	0.0055	U	0.0055	U
Aroclor-1221	mg/kg	0.006	U	0.0065	U	0.0065	U	0.006	U	0.006	U
Aroclor-1232	mg/kg	0.008	U	0.0085	U	0.0085	U	0.008	U	0.008	U
Aroclor-1242	mg/kg	0.011	U	0.0115	U	0.0115	U	0.011	U	0.011	U
Aroclor-1248	mg/kg	0.0055	U	0.006	U	0.006	U	0.0055	U	0.0055	U
Aroclor-1254	mg/kg	0.0065	U	0.007	U	0.007	U	0.0065	U	0.0065	U
Aroclor-1260	mg/kg	0.0065	U	0.007	U	0.007	U	0.0065	U	0.0065	U

**Notes**

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

**Qualifiers**

P = Greater than 25% difference for detected concentrations between the two GC columns.

B = Value is less than contract required detection limit, but greater than or equal to instrument detection limit.

U = Not Detected.

N = Spiked sample recovery not within control limits.

W= post digestion spike was out of control limits.

E = Estimated Value.

**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID SAMPLE ID DATE	AT9-780A AT9-780A 07/22/99	AT9-780B AT9-780B 07/22/99	AT9-780C AT9-780C 07/22/99	AT9-780D AT9-780D 07/22/99	AT9-780E AT9-780E 07/22/99	AT9-781A AT9-781A 07/22/99	AT9-781B AT9-781B 07/22/99	AT9-781C AT9-781C 07/22/99	AT9-781D AT9-781D 07/22/99	AT9-781E AT9-781E 07/22/99													
<b>Lipid</b>																							
Lipid	Percent	0.142	1.15	1.131	0.761	0.6	0.731	0.746	0.621	0.292	0.549												
<b>Metals</b>																							
Aluminum	mg/kg	4.9	U	4.85	U	5.1	U	5.05	U	4.95	U	5.1	U	5	U	5.05	U	4.65	U	5.35	U		
Antimony	mg/kg	0.4	U	0.395	U	0.415	U	0.41	U	0.405	U	0.415	U	0.41	U	0.415	U	0.38	U	0.44	U		
Arsenic	mg/kg	1.5	B	1.9		1.9		1.7	B	1.5	B	1.9		1.6	B	1.6	B	1.6	B	1.6	B		
Barium	mg/kg	5.3	U	5.3	U	5.55	U	5.5	U	5.4	U	5.55	U	5.45	U	5.5	U	5.05	U	5.85	U		
Beryllium	mg/kg	0.135	U	0.13	U	0.14	U	0.135	U	0.135	U	0.14	U	0.135	U	0.14	U	0.125	U	0.145	U		
Cadmium	mg/kg	0.09	B	0.1	B	0.13	B	0.11	B	0.09	B	0.11	B	0.1	B	0.08	B	0.09	B	0.1	B		
Calcium	mg/kg	268	B	327	B	273	B	271	B	277	B	283	B	267	B	270	B	279	B	266	B		
Chromium	mg/kg	0.6	U	0.6	U	0.65	U	0.65	U	0.65	U	0.65	U	4.6	B	0.65	U	6.4		0.6	U	0.7	U
Cobalt	mg/kg	1.35	U	1.35	U	1.45	U	1.4	U	1.4	U	1.45	U	1.4	U	1.4	U	1.3	U	1.5	U		
Copper	mg/kg	3.8	B	3.1	B	3	B	3.4	B	3.7	B	2.6	B	2.1	B	2.3	B	2.2	B	2.2	B		
Iron	mg/kg	46.7	B	68.8	B	50.9	B	52.1	B	51.9	B	74.4		47.3	B	77.2		48	B	45.9	B		
Lead	mg/kg	0.38	B	0.44	B	0.76	B	0.45	B	0.34	B	0.44	B	0.46	B	0.77	B	0.46	B	0.51	B		
Magnesium	mg/kg	448		572		485		488		494		514		470		488		485		456			
Manganese	mg/kg	1.3	U	1.3	U	1.35	U	1.35	U	1.3	U	1.35	U	1.35	U	1.3	U	1.2	U	1.4	U		
Mercury	mg/kg	0.29	U	0.3	U	0.325	U	0.295	U	0.315	U	0.325	U	0.325	U	0.33	U	0.29	U	0.335	U		
Nickel	mg/kg	1.35	U	1.3	U	1.4	U	1.35	U	1.35	U	6.3	B	1.35	U	5.7	B	1.25	U	1.45	U		
Potassium	mg/kg	2370	BN	2700	N	2550	BN	2590	BN	2540	BN	2580	BN	2480	BN	2390	BN	2540	N	2360	BN		
Selenium	mg/kg	0.4	U	0.395	U	0.415	U	0.41	U	0.405	U	0.415	U	0.41	U	0.415	U	0.38	U	0.44	U		
Silver	mg/kg	0.135	UN	0.13	UN	0.14	UN	0.135	UN	0.135	UN	0.14	UN	0.135	UN	0.14	UN	0.125	UN	0.145	UN		
Sodium	mg/kg	3620	B	4600	B	3770	B	3980	B	3910	B	4060	B	3780	B	3940	B	3770	B	3650	B		
Thallium	mg/kg	0.145	UNW	0.145	UNW	0.145	UNW	0.145	UN	0.15	UN	0.145	UNW	0.145	UNW	0.14	UN	0.145	UNW	0.13	UNW		
Vanadium	mg/kg	1.25	U	1.25	U	1.3	U	1.3	U	1.25	U	1.3	U	1.25	U	1.3	U	1.2	U	1.35	U		
Zinc	mg/kg	14.1	BN	12.5	BN	23	BN	45.2	BN	28.3	BN	16.8	BN	34.7	BN	30.9	BN	15.4	BN	20.4	BN		
<b>Pesticides/PCBs</b>																							
Aroclor-1016	mg/kg	0.006	U	0.006	U	0.006	U	0.0055	U	0.0055	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U		
Aroclor-1221	mg/kg	0.0065	U	0.0065	U	0.0065	U	0.006	U	0.006	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U		
Aroclor-1232	mg/kg	0.008	U	0.0085	U	0.008	U	0.008	U	0.008	U	0.008	U	0.0085	U	0.0085	U	0.0085	U	0.008	U		
Aroclor-1242	mg/kg	0.011	U	0.0115	U	0.011	U	0.011	U	0.011	U	0.011	U	0.0115	U	0.0115	U	0.0115	U	0.011	U		
Aroclor-1248	mg/kg	0.006	U	0.006	U	0.006	U	0.0055	U	0.0055	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U		
Aroclor-1254	mg/kg	0.007	U	0.007	U	0.007	U	0.0065	U	0.0065	U	0.007	U	0.007	U	0.007	U	0.007	U	0.007	U		
Aroclor-1260	mg/kg	0.007	U	0.007	U	0.007	U	0.0065	U	0.0065	U	0.007	U	0.007	U	0.007	U	0.007	U	0.007	U		

**Notes**

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

**Qualifiers**

P = Greater than 25% difference for detected concentrations between the two GC columns.

B = Value is less than contract required detection limit, but greater than or equal to instrument detection limit.

U = Not Detected.

N = Spiked sample recovery not within control limits.

W= post digestion spike was out of control limits.

E = Estimated Value.

**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID SAMPLE ID DATE	AT9-782A AT9-782A 07/22/99	AT9-782B AT9-782B 07/22/99	AT9-782C AT9-782C 07/22/99	AT9-782D AT9-782D 07/22/99	AT9-782E AT9-782E 07/22/99	AT9-792A AT9-792A 07/22/99	AT9-792B AT9-792B 07/22/99	AT9-792C AT9-792C 07/22/99	AT9-792D AT9-792D 07/22/99	AT9-792E AT9-792E 07/22/99	
<b>Lipid</b>											
Lipid	Percent	0.473	0.571	0.599	0.791	0.596	0.703	0.623	0.331	0.93	0.978
<b>Metals</b>											
Aluminum	mg/kg	5.2	U	5.4	U	4.7	U	4.75	U	4.65	U
Antimony	mg/kg	0.425	U	0.44	U	0.385	U	0.39	U	0.38	U
Arsenic	mg/kg	1.7	B	1.6	B	1.5	B	1.3	B	1.6	B
Barium	mg/kg	5.7	U	5.9	U	5.1	U	5.2	U	5.05	U
Beryllium	mg/kg	0.14	U	0.145	U	0.13	U	0.13	U	0.125	U
Cadmium	mg/kg	0.12	B	0.08	B	0.09	B	0.06	B	0.08	B
Calcium	mg/kg	285	B	264	B	240	B	185	B	252	B
Chromium	mg/kg	0.65	U	1.8	B	1.2	B	0.6	U	3	B
Cobalt	mg/kg	1.45	U	1.5	U	1.3	U	1.35	U	1.3	U
Copper	mg/kg	2.8	B	2	B	1.7	B	1.4	B	2.2	B
Iron	mg/kg	55.1	B	52.6	B	58.1	B	32	B	62.3	B
Lead	mg/kg	0.63	B	0.41	B	0.41	B	0.42	B	0.43	B
Magnesium	mg/kg	503		475		418		335		470	
Manganese	mg/kg	1.35	U	1.4	U	1.25	U	1.25	U	1.25	U
Mercury	mg/kg	0.315	U	0.33	U	0.335	U	0.32	U	0.28	U
Nickel	mg/kg	3.3	B	1.45	U	1.3	U	1.3	U	4.1	B
Potassium	mg/kg	2570	BN	2400	BN	2200	BN	1770	BN	2430	BN
Selenium	mg/kg	0.425	U	0.44	U	0.385	U	0.39	U	0.38	U
Silver	mg/kg	0.14	UN	0.145	UN	0.13	UN	0.13	UN	0.125	UN
Sodium	mg/kg	3890	B	3730	B	3200	B	2640	B	3700	B
Thallium	mg/kg	0.13	UNW	0.14	UN	0.145	UN	0.125	UN	0.145	UN
Vanadium	mg/kg	1.35	U	1.35	U	1.2	U	1.2	U	1.2	U
Zinc	mg/kg	16.8	BN	12.4	BN	18.1	BN	9.1	BN	31.3	BN
<b>Pesticides/PCBs</b>											
Aroclor-1016	mg/kg	0.0055	U	0.006	U	0.006	U	0.006	U	0.006	U
Aroclor-1221	mg/kg	0.006	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U
Aroclor-1232	mg/kg	0.008	U	0.008	U	0.0085	U	0.0085	U	0.0085	U
Aroclor-1242	mg/kg	0.011	U	0.011	U	0.0115	U	0.0115	U	0.0115	U
Aroclor-1248	mg/kg	0.0055	U	0.006	U	0.006	U	0.006	U	0.006	U
Aroclor-1254	mg/kg	0.0065	U	0.007	U	0.007	U	0.007	U	0.007	U
Aroclor-1260	mg/kg	0.0065	U	0.007	U	0.007	U	0.007	U	0.023	P

**Notes**

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

**Qualifiers**

P = Greater than 25% difference for detected concentrations between the two GC columns.

B = Value is less than contract required detection limit, but greater than or equal to instrument detection limit.

U = Not Detected.

N = Spiked sample recovery not within control limits.

W= post digestion spike was out of control limits.

E = Estimated Value.

**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID SAMPLE ID DATE	AT9-793A AT9-793A 07/22/99	AT9-793B AT9-793B 07/22/99	AT9-793C AT9-793C 07/22/99	AT9-793D AT9-793D 07/22/99	AT9-793E AT9-793E 07/22/99	AT9-794A AT9-794A 07/22/99	AT9-794B AT9-794B 07/22/99	AT9-794C AT9-794C 07/22/99	AT9-794D AT9-794D 07/22/99	AT9-794E AT9-794E 07/22/99	
<b>Lipid</b>											
Lipid	Percent	0.428	0.339	0.456	0.211	0.383	0.269	0.098	0.117	0.184	0.311
<b>Metals</b>											
Aluminum	mg/kg	5.05	U	5.1	U	5	U	5.05	U	5.05	U
Antimony	mg/kg	0.41	U	0.415	U	0.41	U	0.41	U	0.41	U
Arsenic	mg/kg	1.8		1.5	B	1.4	B	1.8		1.5	B
Barium	mg/kg	5.5	U	5.55	U	5.45	U	5.5	U	5.5	U
Beryllium	mg/kg	0.135	U	0.14	U	0.135	U	0.14	U	0.135	U
Cadmium	mg/kg	0.09	B	0.1	B	0.1	B	0.09	B	0.08	B
Calcium	mg/kg	270	B	275	B	245	B	250	B	261	B
Chromium	mg/kg	0.65	U	0.65	U	0.65	U	0.65	U	0.65	U
Cobalt	mg/kg	1.4	U	1.45	U	1.4	U	1.4	U	1.4	U
Copper	mg/kg	4.4	B	5.1	B	4.2	B	5.7	B	4	B
Iron	mg/kg	56.5	B	47.2	B	54.2	B	46.7	B	48.2	B
Lead	mg/kg	0.4	B	0.23	B	0.95	B	0.42	B	0.26	B
Magnesium	mg/kg	512		542		429		476		498	
Manganese	mg/kg	1.35	U	1.35	U	1.3	U	1.35	U	1.35	U
Mercury	mg/kg	0.325	U	0.29	U	0.29	U	0.295	U	0.335	U
Nickel	mg/kg	1.35	U	1.4	U	1.35	U	1.4	U	1.35	U
Potassium	mg/kg	2630	BN	2620	BN	2330	BN	2610	BN	2560	BN
Selenium	mg/kg	0.41	U	0.415	U	0.41	U	0.415	U	0.41	U
Silver	mg/kg	0.135	UN	0.14	UN	0.135	UN	0.14	UN	0.135	UN
Sodium	mg/kg	3950	B	4110	B	3370	B	3870	B	3860	B
Thallium	mg/kg										
Vanadium	mg/kg	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Zinc	mg/kg	14.4	BN	15.6	BN	24.5	BN	12.1	BN	16.7	BN
<b>Pesticides/PCBs</b>											
Aroclor-1016	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U
Aroclor-1221	mg/kg	0.0065	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U
Aroclor-1232	mg/kg	0.0085	U	0.009	U	0.0085	U	0.0085	U	0.0085	U
Aroclor-1242	mg/kg	0.0115	U	0.012	U	0.0115	U	0.0115	U	0.0115	U
Aroclor-1248	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U
Aroclor-1254	mg/kg	0.007	U	0.007	U	0.007	U	0.007	U	0.007	U
Aroclor-1260	mg/kg	0.023		0.02		0.02		0.014		0.007	

**Notes**

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

**Qualifiers**

P = Greater than 25% difference for detected concentrations between the two GC columns.

B = Value is less than contract required detection limit, but greater than or equal to instrument detection limit.

U = Not Detected.

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**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID	AT9-825A	AT9-825B	AT9-825C	AT9-825D	AT9-825E	AT9-826A	AT9-826B	AT9-826C	AT9-826D	AT9-826E
SAMPLE_ID	AT9-825A	AT9-825B	AT9-825C	AT9-825D	AT9-825E	AT9-826A	AT9-826B	AT9-826C	AT9-826D	AT9-826E
DATE	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99	07/22/99
<b>Lipid</b>										
Lipid	Percent	0.188	0.544	0.195	0.65	0.708	0.295	0.554	0.436	0.39
<b>Metals</b>										
Aluminum	mg/kg	5.05	U	5.1	U	5.05	U	5.2	U	5
Antimony	mg/kg	0.415	U	0.42	U	0.415	U	0.425	U	0.41
Arsenic	mg/kg	1.5	B	1.8	B	1.8	B	1.6	B	1.3
Barium	mg/kg	5.5	U	5.6	U	5.55	U	5.65	U	5.45
Beryllium	mg/kg	0.14	U	0.14	U	0.14	U	0.135	U	0.135
Cadmium	mg/kg	0.08	B	0.08	B	0.09	B	0.07	B	0.06
Calcium	mg/kg	282	B	269	B	261	B	251	B	245
Chromium	mg/kg	0.65	U	0.65	U	0.65	U	0.65	U	0.65
Cobalt	mg/kg	1.45	U	1.45	U	1.45	U	1.4	U	1.4
Copper	mg/kg	2.3	B	3.6	B	2	B	1.6	B	1.9
Iron	mg/kg	47.8	B	52.5	B	51.1	B	42.5	B	46.4
Lead	mg/kg	0.36	B	0.34	B	0.39	B	0.37	B	0.28
Magnesium	mg/kg	547		520		620		446		485
Manganese	mg/kg	1.35	U	1.35	U	1.35	U	1.3	U	1.3
Mercury	mg/kg	0.335	U	0.325	U	0.33	U	0.295	U	0.315
Nickel	mg/kg	1.4	U	1.4	U	1.4	U	1.4	U	1.35
Potassium	mg/kg	2700	BN	2700	BN	2550	BN	2310	BN	2490
Selenium	mg/kg	0.415	U	0.42	U	0.415	U	0.425	U	0.41
Silver	mg/kg	0.14	UN	0.14	UN	0.14	UN	0.135	UN	0.135
Sodium	mg/kg	4210	B	4000	B	3720	B	3400	B	3720
Thallium	mg/kg									
Vanadium	mg/kg	1.3	U	1.3	U	1.3	U	1.3	U	1.3
Zinc	mg/kg	18.4	BN	17.2	BN	13.2	BN	14.9	BN	13
<b>Pesticides/PCBs</b>										
Aroclor-1016	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.006
Aroclor-1221	mg/kg	0.0065	U	0.0065	U	0.0065	U	0.0065	U	0.0065
Aroclor-1232	mg/kg	0.0085	U	0.0085	U	0.0085	U	0.0085	U	0.0085
Aroclor-1242	mg/kg	0.0115	U	0.0115	U	0.0115	U	0.0115	U	0.0115
Aroclor-1248	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.006
Aroclor-1254	mg/kg	0.007	U	0.007	U	0.007	U	0.007	U	0.007
Aroclor-1260	mg/kg	0.007	U	0.007	U	0.007	U	0.007	U	0.007

**Notes**

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

**Qualifiers**

P = Greater than 25% difference for detected concentrations between the two GC columns.

B = Value is less than contract required detection limit, but greater than or equal to instrument detection limit.

U = Not Detected.

N = Spiked sample recovery not within control limits.

W= post digestion spike was out of control limits.

E = Estimated Value.

**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

		LOC_ID	FF1MB01	FF1MB02	FF1MB03	FF1TF01	FF1TF02	FF1US011	FF1US012	FF1US013	FF1US014	FF1US015									
		SAMPLE ID	FF1MB01	FF1MB02	FF1MB03	FF1TF01	FF1TF02	FF1US011	FF1US012	FF1US013	FF1US014	FF1US015									
		DATE	05/15/99	05/16/99	05/16/99	05/15/99	05/15/99	05/20/99	05/20/99	05/20/99	05/20/99	05/20/99									
<b>Lipid</b>	Lipid	mg/kg																			
	Lipid	Percent	490	0.56	89	P	150	72	0.05	U	73	90									
<b>Metals</b>																					
Aluminum	mg/kg	5	B	19.5	B	7.2	B	20.4	JB	6	JB	12.7	JB	41.2	JB	48.8	JB	29	JB		
Antimony	mg/kg	0.415	U	0.41	U	0.41	U	0.415	U	0.42	U	0.45	U	0.42	U	0.415	U	0.42	U		
Arsenic	mg/kg	0.195	U	0.19	U	0.19	U	0.195	UJ	0.195	UJ	0.21	UJ	0.195	UJ	0.195	UJ	0.195	UJ		
Barium	mg/kg	1.05	U	1	U	1.05	U	1.05	U	1.05	U	1.1	U	1.05	U	1.05	U	1.05	U		
Beryllium	mg/kg	0.295	U	0.29	U	0.29	U	0.295	U	0.295	U	0.3	U	0.32	U	0.3	U	0.295	U	0.3	U
Cadmium	mg/kg	0.025	U	0.025	U	0.025	U	0.05	B	0.025	U	0.025	U	0.025	U	0.05	B	0.025	U		
Calcium	mg/kg	6570	B	13200		10400		10100	J	6950	JB	11600	J	6720	JB	8340	JB	7170	JB	3150	J
Chromium	mg/kg	0.33	B	0.51	B	0.39	B	0.61	B	0.37	B	0.64	B	0.43	B	0.69	B	0.8	B	0.5	B
Cobalt	mg/kg	0.265	U	0.265	U	0.265	U	0.265	UJ	0.265	UJ	0.27	UJ	0.29	UJ	0.27	UJ	0.27	UJ	0.27	UJ
Copper	mg/kg	1.4	B	3.8	B	2.7	B	3.7	B	1.4	B	5.4	B	3.7	B	2.7	B	3	B	2.1	B
Iron	mg/kg	18.5	B	66.8	B	42.1	B	53.9	B	19.3	B	61.2	B	40.3	B	94.8		110		72.3	B
Lead	mg/kg	0.49	B	0.7	B	0.49	B	0.65	JB	0.53	JB	0.72	JB	0.66	JB	0.62	JB	0.89	JB	0.53	JB
Magnesium	mg/kg	502		600		537		533		416		563		345		613		568		385	
Manganese	mg/kg	0.95	U	7.9	B	5.7	B	8.8	B	1.9	B	6.6	B	3.8	B	3.5	B	3.1	B	1	U
Mercury	mg/kg	0.315	U	0.29	UE	0.29	U	0.29	U	0.325	U	0.28	U	0.305	U	0.34	U	0.285	U	0.29	U
Nickel	mg/kg	0.1	U	0.1	U	0.21	B	0.49	JB	0.28	JB	0.1	UJ	0.28	JB	0.3	JB	0.1	UJ	0.22	JB
Potassium	mg/kg	2760		2860		2720	B	2730	B	3050		3010		3000		3110		3180		2890	
Selenium	mg/kg	0.74	B	0.72	B	0.77	B	0.85	JB	0.72	JB	0.83	JB	0.62	JB	0.86	JB	0.89	JB	0.71	JB
Silver	mg/kg	0.125	U	0.125	U	0.125	U	0.125	UJ	0.125	UJ	0.125	UJ	0.135	UJ	0.125	UJ	0.125	UJ	0.125	UJ
Sodium	mg/kg	1060	B	1350	B	1270	B	1200	B	1150	B	1160	B	1100	B	1100	B	1140	B	496.5	U
Thallium	mg/kg	0.145	U	0.145	UW	0.135	U	0.15	UW	0.14	U	0.14	U	0.135	U	0.14	U	0.14	U	0.14	U
Vanadium	mg/kg	0.265	U	0.265	U	0.265	U	0.265	U	0.265	U	0.27	U	0.29	U	0.27	U	0.27	U	0.27	U
Zinc	mg/kg	28.6	B	41.6	B	35.1	B	40.4	B	31.7	B	40.7	B	28.9	B	31.5	B	30.4	B	25.6	B
<b>Pesticides/PCBs</b>																					
Aroclor-1016	mg/kg	0.0485	U	0.006	U	0.006	U	0.006	U	0.006	U	0.005	U	0.006	U	0.006	U	0.006	U	0.006	U
Aroclor-1221	mg/kg	0.055	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U	0.0055	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U
Aroclor-1232	mg/kg	0.07	U	0.0085	U	0.0085	U	0.0085	U	0.0085	U	0.007	U	0.0085	U	0.0085	U	0.0085	U	0.0085	U
Aroclor-1242	mg/kg	0.095	U	0.0115	U	0.0115	U	0.011	U	0.0115	U	0.0115	U	0.0095	U	0.0115	U	0.0115	U	0.0115	U
Aroclor-1248	mg/kg	0.0485	U	0.006	U	0.006	U	0.006	U	0.046		0.006	U	0.005	U	0.006	U	0.006	U	0.006	U
Aroclor-1254	mg/kg	0.87	P	0.088	P	0.094	P	0.14	P	0.12	P	0.017		0.077	P	0.12	P	0.12	P	0.11	P
Aroclor-1260	mg/kg	0.49		0.1		0.089	P	0.15		0.072		0.007	U	0.073		0.09		0.083		0.076	

**Notes**

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**Qualifiers**

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U = Not Detected.

N = Spiked sample recovery not within control limits.

W= Post digestion spike was out of control limits.

E = Estimated Value.

**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

	LOC_ID	FF2MB01	FF2MB02	FF2TD01	FF2TD02	FF2TD03	FF2TD04	FF2US01	FF2US02	FF2US03	FF2US04	
	SAMPLE ID	FF2MB01	FF2MB02	FF2TD01	FF2TD02	FF2TD03	FF2TD04	FF2US01	FF2US02	FF2US03	FF2US04	
	DATE	05/16/99	05/16/99	05/16/99	05/16/99	05/16/99	05/16/99	05/16/99	05/16/99	05/16/99	05/16/99	
<b>Lipid</b>	Lipid	mg/kg	64	33	36	57	79	130	0.63	0.31	0.73	
	Lipid	Percent									0.23	
<b>Metals</b>	Aluminum	mg/kg	5	B	4.7	B	2	UJ	4.8	JB	4.6	JB
	Antimony	mg/kg	0.445	U	0.42	U	0.43	U	0.425	U	0.425	U
	Arsenic	mg/kg	0.205	U	0.195	U	0.2	UJ	0.2	UJ	0.195	UJ
	Barium	mg/kg	1.1	U	1.05	U	1.05	U	1.05	U	1.05	U
	Beryllium	mg/kg	0.315	U	0.3	U	0.305	U	0.3	U	0.305	U
	Cadmium	mg/kg	0.025	U	0.025	U	0.025	B	0.025	U	0.025	U
	Calcium	mg/kg	4030		4240		856	JB	2600	J	755	JB
	Chromium	mg/kg	0.34	B	0.36	B	0.4	B	0.3	B	0.28	B
	Cobalt	mg/kg	0.285	U	0.27	U	0.275	UJ	0.275	UJ	0.275	UJ
	Copper	mg/kg	0.54	B	0.5	B	0.53	B	0.96	B	0.48	B
	Iron	mg/kg	7.9	B	7.3	B	6.6	B	7.9	B	7.3	B
	Lead	mg/kg	0.58	B	0.72	B	0.75	JB	0.93	JB	0.5	JB
	Magnesium	mg/kg	367		423		262	B	245	B	297	B
	Manganese	mg/kg	1.05	U	0.95	U	1	U	1	U	1	U
	Mercury	mg/kg	0.29	U	0.34	U	0.31	U	0.305	U	0.285	U
	Nickel	mg/kg	0.11	U	0.105	U	0.105	UJB	0.105	UJB	0.105	UJB
	Potassium	mg/kg	3520		4240		3600		3120		3590	
	Selenium	mg/kg	0.76	B	0.68	B	0.7	JB	0.6	JB	0.8	JB
	Silver	mg/kg	0.135	U	0.125	U	0.13	UJ	0.13	UJ	0.125	UJ
	Sodium	mg/kg	525	U	493	U	1160	B	500	U	497.5	U
	Thallium	mg/kg	0.135	U	0.135	U	0.135	U	0.15	U	0.14	U
	Vanadium	mg/kg	0.285	U	0.27	U	0.275	U	0.275	U	0.275	U
	Zinc	mg/kg	4.75	U	12.7	B	4.6	U	13.7	B	4.55	U
<b>Pesticides/PCBs</b>	Aroclor-1016	mg/kg	0.0055	U	0.006	U	0.0055	U	0.006	U	0.006	U
	Aroclor-1221	mg/kg	0.006	U	0.0065	U	0.006	U	0.0065	U	0.0065	U
	Aroclor-1232	mg/kg	0.008	U	0.0085	U	0.008	U	0.0085	U	0.0085	U
	Aroclor-1242	mg/kg	0.011	U	0.0115	U	0.011	U	0.0115	U	0.0115	U
	Aroclor-1248	mg/kg	0.0055	U	0.006	U	0.0055	U	0.006	U	0.006	U
	Aroclor-1254	mg/kg	0.062	P	0.048	P	0.038	P	0.073	P	0.095	P
	Aroclor-1260	mg/kg	0.064		0.033		0.036		0.057		0.079	

**Notes**

PCBs = Polychlorinated biphenyls

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**Qualifiers**

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B = Value is less than contract required detection limit, but greater than or equal to instrument detection limit.

U = Not Detected.

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**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

LOC_ID SAMPLE ID DATE	HRT-1 HRT-1-A 12/15/94	HRT-1 HRT-1-B 12/20/94	HRT-1 HRT-1-C 12/15/94	IFT-1 IFT-1-A 12/15/94	IFT-1 IFT-1-B 12/15/94	IFT-1 IFT-1-C 12/15/94	IFT-2 IFT-2-A 12/16/94	IFT-2 IFT-2-B 12/16/94	IFT-2 IFT-2-C 12/16/94	IFT-3 IFT-3-A 12/19/94
<b>Lipid</b>	Lipid mg/kg	262000	3000 U	232000	104000	393000	97900	142000	163000	33300
<b>Metals</b>	Lipid Percent									3000 U
Aluminum	mg/kg									
Antimony	mg/kg									
Arsenic	mg/kg									
Barium	mg/kg									
Beryllium	mg/kg									
Cadmium	mg/kg	5.2	4.9	5.4	5.2 J	4.4	4.8	4.1	5.1	6
Calcium	mg/kg									
Chromium	mg/kg	1.6	1.4	2.6	2.8	2	3.6	3.8	5.1	6
Cobalt	mg/kg									
Copper	mg/kg									
Iron	mg/kg									
Lead	mg/kg	4.6	0.95 U	3.4	0.9 U	1 U	1.05 U	1.05 U	4.5	2.9
Magnesium	mg/kg									
Manganese	mg/kg									
Mercury	mg/kg									
Nickel	mg/kg	14.1	14.1	19.1	0.13 14.7	0.065 U 13.9	0.07 U 17.8	0.075 U 13.7	0.075 U 12.3	0.065 U 11.9
Potassium	mg/kg									
Selenium	mg/kg									
Silver	mg/kg									
Sodium	mg/kg									
Thallium	mg/kg									
Vanadium	mg/kg									
Zinc	mg/kg									
<b>Pesticides/PCBs</b>										
Aroclor-1016	mg/kg									
Aroclor-1221	mg/kg									
Aroclor-1232	mg/kg									
Aroclor-1242	mg/kg									
Aroclor-1248	mg/kg									
Aroclor-1254	mg/kg	0.66 J	0.42 J	0.58	0.19 J	0.76	0.28 J	0.55 J	1.8	0.9
Aroclor-1260	mg/kg									0.57 J

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**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

	LOC_ID SAMPLE ID DATE	IFT-3 IFT-3-B 12/19/94	IFT-3 IFT-3-C 12/19/94	IFT-4 IFT-4-A 12/19/94	IFT-4 IFT-4-B 12/19/94	IFT-4 IFT-4-C 12/19/94	IFT-5 IFT-5-A 12/19/94	IFT-5 IFT-5-B 12/19/94	IFT-5 IFT-5-C 12/19/94	SF1MB01 SF1MB01 05/17/99	SF1MB012 SF1MB012 05/17/99
<b>Lipid</b>	Lipid mg/kg	39000	107000	175000	30800	63000	18500	3000 U	300000	0.33	0.32
<b>Metals</b>	Lipid Percent										
Aluminum	mg/kg									37.3 B	36.4 B
Antimony	mg/kg									0.43 U	0.41 U
Arsenic	mg/kg									0.5 B	0.42 B
Barium	mg/kg									1.1 U	1.05 U
Beryllium	mg/kg									0.305 U	0.29 U
Cadmium	mg/kg	6.9	6.5	6.3	5.3	5.2	4.9	4.5	3.2	0.13 B	0.15 B
Calcium	mg/kg									659 B	722 B
Chromium	mg/kg	2.1	1.9	1.9	4.6	1.7	1.4	1.9	1.6	0.53 B	0.48 B
Cobalt	mg/kg									0.28 U	0.265 U
Copper	mg/kg									3.4 B	3.5 B
Iron	mg/kg									95.6	83.6
Lead	mg/kg	3.9	1.1 U	2.6	3.3	3	4.9	2.8	5	0.75 B	0.87 B
Magnesium	mg/kg									644	689
Manganese	mg/kg									4.6 B	5.4 B
Mercury	mg/kg	0.2	0.17	0.16	0.075 U	0.08 U	0.26	0.075 U	0.085 U	0.285 U	0.3 U
Nickel	mg/kg	15.8	20.2	13.5	15.7	15.6	23.8	21	20	0.27 B	0.28 B
Potassium	mg/kg									1130 B	1140 B
Selenium	mg/kg									0.57 B	0.43 B
Silver	mg/kg									0.13 U	0.125 U
Sodium	mg/kg									4060 B	4510 B
Thallium	mg/kg									0.15 UW	0.14 UW
Vanadium	mg/kg									0.28 U	0.265 U
Zinc	mg/kg									10.1 B	11.7 B
<b>Pesticides/PCBs</b>	Aroclor-1016	mg/kg								0.006 U	0.006 U
	Aroclor-1221	mg/kg								0.0065 U	0.0065 U
	Aroclor-1232	mg/kg								0.0085 U	0.0085 U
	Aroclor-1242	mg/kg								0.011 U	0.0115 U
	Aroclor-1248	mg/kg								0.006 U	0.006 U
	Aroclor-1254	mg/kg	0.77	0.49 J	0.24 J	0.75	1.1	1.3 J	1.9 J	0.8 J	0.046 P
	Aroclor-1260	mg/kg								0.007 U	0.007 U

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**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT**  
**STRATFORD ARMY ENGINE PLANT**  
**STRATFORD, CONNECTICUT**

		LOC_ID	SF1MB013	SF1MB014	SF1MB015	SF1TF01	SF1TF02	SF1TF03	SF1TF031	SF1TF032	SF1TF033	SF1TF034
		SAMPLE ID	SF1MB013	SF1MB014	SF1MB015	SF1TF01	SF1TF02	SF1TF03	SF1TF031	SF1TF032	SF1TF033	SF1TF034
		DATE	05/17/99	05/17/99	05/17/99	05/15/99	05/15/99	05/15/99	05/15/99	05/15/99	05/15/99	05/15/99
<b>Lipid</b>	Lipid	mg/kg										
	Lipid	Percent	6	0.37	0.44	20	16	0.57	0.44	0.61	0.41	0.29
<b>Metals</b>	Aluminum	mg/kg	52.5	B	30.2	B	27.8	B				
	Antimony	mg/kg	0.445	U	0.43	U	0.415	U	0.44	U	0.425	U
	Arsenic	mg/kg	0.58	B	0.51	B	0.47	B	0.61	JB	0.2	UJ
	Barium	mg/kg	1.1	U	1.05	U	1.05	U	1.1	U	1.05	U
	Beryllium	mg/kg	0.315	U	0.305	U	0.295	U	0.31	U	0.3	U
	Cadmium	mg/kg	0.14	B	0.16	B	0.14	B	0.18	B	0.15	B
	Calcium	mg/kg	1350		629	B	746	B	861	JB	466	JB
	Chromium	mg/kg	0.6	B	0.48	B	0.47	B	7		2.2	B
	Cobalt	mg/kg	0.285	U	0.275	U	0.265	U	0.28	UJ	0.275	UJ
	Copper	mg/kg	4	B	4.2	B	4.1	B	5.4	B	3.8	B
	Iron	mg/kg	119		76.1	B	70.8	B	456		191	
	Lead	mg/kg	0.71	B	0.9	B	0.91	B	1.3	JB	0.88	JB
	Magnesium	mg/kg	695		679		705		708		537	
	Manganese	mg/kg	7.1	B	4.3	B	4.7	B	14.7		10.4	B
	Mercury	mg/kg	0.325	U	0.295	U	0.345	UE	0.315	U	0.31	U
	Nickel	mg/kg	0.33	B	0.37	B	0.26	B	4.3	JB	1.4	JB
	Potassium	mg/kg	1150	B	1170	B	1250	B	933	B	694	B
	Selenium	mg/kg	0.52	B	0.66	B	0.58	B	0.71	JB	0.6	JB
	Silver	mg/kg	0.135	U	0.13	U	0.125	U	0.13	UJ	0.13	UJ
	Sodium	mg/kg	4390	B	4150	B	4720	B	3910	B	2890	B
	Thallium	mg/kg	0.14	UW	0.145	UW	0.145	UW	0.135	UW	0.14	UW
	Vanadium	mg/kg	0.285	U	0.275	U	0.265	U	0.66	B	0.275	U
	Zinc	mg/kg	12.9	B	12.3	B	11.2	B	16.5	B	10.8	B
<b>Pesticides/PCBs</b>	Aroclor-1016	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.00475	U
	Aroclor-1221	mg/kg	0.0065	U	0.0065	U	0.0065	U	0.0065	U	0.005	U
	Aroclor-1232	mg/kg	0.0085	U	0.0085	U	0.0085	U	0.0085	U	0.0065	U
	Aroclor-1242	mg/kg	0.0115	U	0.0115	U	0.0115	U	0.0115	U	0.009	U
	Aroclor-1248	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.00475	U
	Aroclor-1254	mg/kg	0.039	P	0.04	P	0.04	P	0.007	U	0.041	P
	Aroclor-1260	mg/kg	0.007	U	0.007	U	0.007	U	0.02		0.02	P

**Notes**

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

**Qualifiers**

P = Greater than 25% difference for detected concentrations between the two GC columns.

B = Value is less than contract required detection limit, but greater than or equal to instrument detection limit.

U = Not Detected.

N = Spiked sample recovery not within control limits.

W= Post digestion spike was out of control limits.

E = Estimated Value.

**TABLE W-1**  
**BIOTA ANALYTICAL DATA**

**REMEDIAL INVESTIGATION REPORT  
STRATFORD ARMY ENGINE PLANT  
STRATFORD, CONNECTICUT**

	LOC_ID	SF1US01	SF1US011	SF1US012	SF1US013	SF1US014						
	SAMPLE ID	SF1US01	SF1US011	SF1US012	SF1US013	SF1US014						
	DATE	05/16/99	05/16/99	05/16/99	05/16/99	05/16/99						
<b>Lipid</b>	Lipid	mg/kg										
	Lipid	Percent	0.53	0.51	0.23	0.46	0.63					
<b>Metals</b>	Aluminum	mg/kg	118	J	57.2	J	34	JB	60.5	J	89.6	J
	Antimony	mg/kg	0.425	U	0.42	U	0.44	U	0.44	U	0.44	U
	Arsenic	mg/kg	0.49	JB	0.195	UJ	0.205	UJ	0.205	UJ	0.61	JB
	Barium	mg/kg	1.05	U	1.05	U	1.1	U	1.1	U	1.1	U
	Beryllium	mg/kg	0.3	U	0.295	U	0.31	U	0.315	U	0.31	U
	Cadmium	mg/kg	0.33	B	0.17	B	0.1	B	0.19	B	0.23	B
	Calcium	mg/kg	436	JB	441	JB	294	JB	384	JB	378	JB
	Chromium	mg/kg	1.1	B	0.73	B	0.47	B	0.67	B	0.84	B
	Cobalt	mg/kg	0.275	UJ	0.27	UJ	0.28	UJ	0.285	UJ	0.28	UJ
	Copper	mg/kg	8.6	B	4	B	3.1	B	4.3	B	6.2	B
	Iron	mg/kg	256		149		76.2	B	136		179	
	Lead	mg/kg	1.3	JB	1	JB	0.61	JB	0.84	JB	1	JB
	Magnesium	mg/kg	661		649		361		578		645	
	Manganese	mg/kg	9.4	B	6.6	B	3.2	B	5.9	B	7.3	B
	Mercury	mg/kg	0.305	U	0.285	U	0.295	U	0.29	U	0.29	U
	Nickel	mg/kg	0.4	JB	0.24	JB	0.31	JB	0.27	JB	0.33	JB
	Potassium	mg/kg	925	B	1140	B	608	B	1020	B	1010	B
	Selenium	mg/kg	0.89	JB	0.59	JB	0.38	JB	0.56	JB	0.57	JB
	Silver	mg/kg	0.36	JB	0.28	JB	0.13	UJ	0.135	UJ	0.29	JB
	Sodium	mg/kg	3170	B	3830	B	2180	B	3490	B	3570	B
	Thallium	mg/kg	0.14	UW	0.145	UW	0.145	UW	0.145	UW	0.14	UW
	Vanadium	mg/kg	0.275	U	0.27	U	0.28	U	0.285	U	0.28	U
	Zinc	mg/kg	17.8	B	10.6	B	4.7	U	10.8	B	14.7	B
<b>Pesticides/PCBs</b>	Aroclor-1016	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U
	Aroclor-1221	mg/kg	0.0065	U	0.0065	U	0.0065	U	0.0065	U	0.0065	U
	Aroclor-1232	mg/kg	0.0085	U	0.008	U	0.0085	U	0.0085	U	0.0085	U
	Aroclor-1242	mg/kg	0.0115	U	0.011	U	0.0115	U	0.011	U	0.011	U
	Aroclor-1248	mg/kg	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U
	Aroclor-1254	mg/kg	0.045	P	0.051	P	0.051	P	0.044	P	0.045	P
	Aroclor-1260	mg/kg	0.007	U	0.007	U	0.007	U	0.007	U	0.007	U

## Notes

PCBs = Polychlorinated biphenyls

mg/kg = milligrams per kilogram

### **Qualifiers**

P = Greater than 25% difference for detected concentrations between the two GC columns

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P:\Projects\CBDCOM\SAEP\RI-FS-PP\RI Report\2002 RI\Report\Appendices\SAEP Biota APPENDIX xtab.xls>Data?